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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,489	12/12/2003	James R. Hoff	1000-1349	1864

7590 09/28/2005

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EXAMINER

LE, DON P

ART UNIT	PAPER NUMBER
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2819

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/735,489

Applicant(s)

HOFF, JAMES R. 

Examiner

Don P. Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6, 11 and 16-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6, 11, 16, 18, 20 and 22 is/are allowed.
- 6) ☒ Claim(s) 24-28 is/are rejected.
- 7) ☒ Claim(s) 17, 19, 21, 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 112

1. Claims 25 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 17, 19, 21, 23 and 25-28 recite either “TRed1, TRed2, SEUSSnor or SEUSSand”. Request that these term be defined in the claims. These terms are not conventional terms in the art. To expedite the prosecution of this case, it is assumed that these terms are defined as triple redundant circuits, single event upset NAND circuit and single event upset NOR circuit.

Please define the terms completely in the claim as to what exactly these terms meant or provide alternative terms that are well known in the art.

Claims 25 and 26 recite “comprising:” without having any additional elements to follow it. Request that applicant correct it. To expedite the prosecution of this case, it is assumed that there is no additional element in the claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waldie et al. (US 6,504,410). In view of Mano (Digital design, 1984).

4. With respect to claim 24, figure 1 of Waldie discloses a system comprising:

Three registers (14, 16, 18); and

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A correction and feedback circuit (30) that accepts the outputs of the three registers, produces a corrected output, and returns a signal (10) to the inputs of the three registers.

Waldie does not specifically stated that the three registers are SR flip-flop as claimed by applicant. Figure 6-5 of Mano discloses a D flip-flop is an SR flip-flop with an inverted input. It would have been obvious to one of ordinary skill of art at the time the invention was made to have implemented the D flip-flop of Waldie with the RS flip-flop as taught by Mano with an inverted input. (D flip flop is implemented with RS flip-flop).

5. With respect to claims 25 and 26, the apparatus of Waldie is a triple redundant circuitry.

6. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waldie et al. (US 6,504,410) in view of Mano (Digital Logic, 1984) as applied to claim 24 above, and further in view of Eaton (US 6,756,809). The apparatus of Waldie in view of Mano does not specifically teach SEU logics as claimed by applicant, figures 1-6 of Eaton disclose logic gates (NAND and NOR gate) designed for the purpose of preventing SEU. It would have been obvious to one of ordinary skill of art at the time the invention was made to have to implemented the logic gates of Waldie in view of Mano with SEU gates as taught by Eaton for the purpose of preventing SEU.

Allowable Subject Matter

7. Claims 6, 11, 16, 18, 20 and 22 are allowed.

8. Claims 17, 19, 21 and 23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments with respect to claims 24-28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

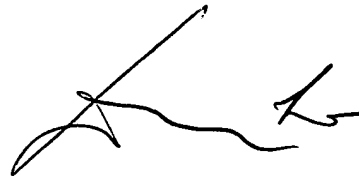
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Don P. Le whose telephone number is 571-272-1806. The examiner can normally be reached on 7AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Tokar can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

9/25/2005

A handwritten signature in black ink, appearing to read 'DON LE', with a stylized flourish extending from the end.

DON LE
PRIMARY EXAMINER